# General Specifications

Model EJA530A/HAC Gauge Pressure Transmitter (High Accuracy Type) **DP**hare

GS 01C21F01-02E

[Style: S2]

The gauge pressure transmitter model EJA530A/HAC can be used to measure liquid, gas, or steam pressure. Both output a 4 to 20 mA DC signal corresponding to the measured pressure, and also feature remote setup and monitoring through communications with the BRAIN<sup>TM</sup> terminal and CENTUM CS<sup>TM</sup> or μXL<sup>TM</sup> or HART® 275 host.

#### **■ STANDARD SPECIFICATIONS**

Refer to GS 01C22T02-00E for FOUNDATION Fieldbus communication type and GS 01C22T03-00E for PROFIBUS PA communication type marked with "<".

#### □ PERFORMANCE SPECIFICATIONS

Zero-based calibrated span, linear output, wetted parts material code 'S' and silicone oil.

#### Reference Accuracy of Calibrated Span

(including the effects of zero-based linearity, hysteresis, and repeatability)

±0.12 % of Span, (D capsule)

For spans below X,

$$\pm [0.025 + 0.05 \frac{X}{\text{Span}}]$$
 % of span, (A, B and C capsule)

$$\pm$$
[0.03+0.09  $\frac{X}{\text{Span}}$ ] % of span, (D capsule)

#### Where X equals:

Capsule	X MPa {psi}
Α	40 kPa (5.8)
В	0.2 {29}
С	1 {145}
D	8 {1160}

#### **Ambient Temperature Effects**

Total Effects per 28 °C (50 °F) Change

±[0.15% Span + 0.15% URL]

#### Stability

±0.1% of URL per 12 months

#### **Vibration Effects**

 $\pm 0.1$  % of URL

(5 to 15Hz; 4mm peak-to-peak constant displacement, 15 to 150Hz; 2g, 150 to 2000Hz; 1g)

#### Power Supply Effects "♦"

 $\pm 0.005$  % per Volt (from 21.6 to 32 V DC, 350  $\Omega$ )



#### ☐ FUNCTIONAL SPECIFICATIONS

#### Span & Range Limits

Measurement Span and Range		MPa	psi (/D1)	bar (/D3)	kgf/cm <sup>2</sup> (/D4)
_	Span	10 to 200 kPa	1.45 to 29	0.1 to 2	0.1 to 2
A	Range	0 to 200 kPa	0 to 29	0 to 2	0 to 2
В	Span	0.1 to 2	14.5 to 290	1 to 20	1 to 20
Range	0 to 2	0 to 290	0 to 20	0 to 20	
	Span	0.5 to 10	72.5 to 1450	5 to 100	5 to 100
С	Range	0 to 10	0 to 1450	0 to 100	0 to 100
D	Span	5 to 50	720 to 7200	50 to 500	50 to 500
	Range	0 to 50	0 to 7200	0 to 500	0 to 500

T01E.EPS

URL is defined as the Upper Range Limit from the table above.

#### **Zero Adjustment Limits**

Zero can be fully elevated or suppressed, within the Lower and Upper Range Limits of the capsule.

### External Zero Adjustment ">"

External zero is continuously adjustable with 0.01 % incremental resolution of span. Span may be adjusted locally using the digital indicator with range switch.

#### **Mounting Position Effect**

Rotation in diaphragm plane has no effect. Tilting up to 90° will cause zero shift up to 0.27 kPa {1.1 inH $_2$ O} which can be corrected by the zero adjustment.

#### Output "♦"

Two wire 4 to 20 mA DC output with digital communications. BRAIN or HART FSK protocol are superimposed on the 4 to 20 mA signal.

#### Failure Alarm

Output status at CPU failure and hardware error; Up-scale: 110%, 21.6 mA DC or more (standard)

Down-scale: -5%, 3.2 mA DC or less

-2.5%, 3.6 mA DC or less (Optional

code /F1)

Note: Applicable for Output signal code D and E.



Yokogawa Electric Corporation 2-9-32, Nakacho, Musashino-shi, Tokyo, 180-8750 Japan Phone: 81-422-52-5690 Fax.: 81-422-52-2018 GS 01C21F01-02E ©Copyright Apr. 2002 15th Edition April 2013

#### **Damping Time Constant (1st order)**

The sum of the amplifier and capsule damping time constant must be used for the overall time constant. Amp damping time constant is adjustable from 0.2 to 64 seconds.

Capsule (Silicone Oil)	A, B, C, and D
Time Constant (approx. sec)	0.2

#### **Ambient Temperature Limits**

(approval codes may affect limits)

-40 to 85 °C (-40 to 185 °F)

-30 to 80 °C (-22 to 176 °F) with LCD Display

#### **Process Temperature Limits**

(approval codes may affect limits)

-40 to 120 °C (-40 to 248 °F)

#### **Ambient Humidity Limits**

5 to 100 % RH @ 40 °C (104 °F)

#### **Maximum Overpressure**

Capsule	Pressure
А	4 MPa {580 psig}
В	4 MPa {580 psig}
С	20 MPa {2900 psig}
D	60 MPa {8500 psig}

# Working Pressure Limits (Silicone Oil) Maximum Pressure Limit

Capsule	Pressure	
A	200 kPa {29 psig}	
В	2 MPa {290 psig}	
С	10 MPa {1450 psig}	
D	50 MPa {7200 psig}	

#### **Supply & Load Requirements**

(Safety approvals can affect electrical requirements, see graph below)

With 24 V DC supply, up to a 570  $\Omega$  load can be used.

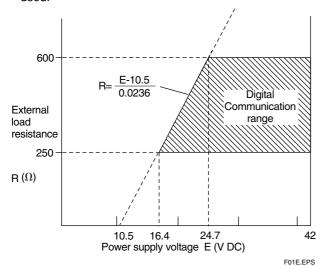


Figure 1. Relationship Between Power Supply Voltage and External Load Resistance

#### Supply Voltage "◇"

10.5 to 42 V DC for general use and flameproof type 10.5 to 32 V DC for lightning protector (Optional code /A)

10.5 to 30 V DC for intrinsically safe, Type n, nonincendive, or non-sparking type Minimum voltage limited at 16.4 V DC for digital communications, BRAIN and HART

#### Load (Output signal code D and E)

0 to 1335  $\Omega$  for operation 250 to 600  $\Omega$  for digital communication

## EMC Conformity Standards "♦" : C€, CN200

EN61326-1 Class A, Table2 (For use in industrial locations) EN61326-2-3

# European Pressure Equipment Directive 97/23/EC

Sound Engineering Practice

#### With option code /PE3

 $C \in \mathbb{R}^{n_2}$ 

Category III, Module H, Type of Equipment: Pressure Accessory-Vessel, Type of Fluid: Liquid and Gas, Group of Fluid: 1 and 2

#### Safety Requirement Standards

EN61010-1

- Altitude of installation site: Max. 2.000 m above sea level
- · Installation category: I
- Pollution degree: 2
- Indoor/Outdoor use

#### **Communication Requirements "◇"**

#### **BRAIN**

#### **Communication Distance**

Up to 2 km (1.25 miles) when using CEV polyethylene-insulated PVC-sheathed cables. Communication distance varies depending on type of cable used.

#### **Load Capacitance**

 $0.22 \mu F$  or less (see note)

#### **Load Inductance**

3.3 mH or less (see note)

#### Spacing from power line

15 cm or more.

# Input Impedance of communicating device

10 k $\Omega$  or more at 2.4 kHz.

Note: For general-use and Flameproof type. For Intrinsically safe type, please refer to 'OPTIONAL SPECIFICATIONS.'

#### ☐ PHYSICAL SPECIFICATIONS

#### **Wetted Parts Materials:**

**Diaphragm and Process connector** Refer to 'MODEL AND SUFFIX CODE.'

#### **Non-wetted Parts Materials:**

#### Housing

Low copper cast-aluminum alloy with polyurethane paint (Munsell 0.6GY3.1/2.0)

#### **Degrees of Protection**

IP67, NEMA4X

#### **Cover O-rings**

Buna-N, fluoro-rubber (optional)

#### Data plate and tag

SUS304 or SUS316 (option)

#### Fill Fluid

Silicone, Fluorinated oil (option)

#### Weight

1.6 kg (3.5 lb) without integral indicator, mounting bracket.

#### **Connections**

Refer to the model code to specify the process and the electrical connection type.

#### < Settings When Shipped > "\ong "

Tag Number	As specified in order *1
Output Mode	'Linear'
Display Mode	'Linear'
Operation Mode	'Normal' unless otherwise specified in order
Damping Time Constant	'2 sec.'
Calibration Range Lower Range Value	As specified in order
Calibration Range Higher Range Value	As specified in order
Calibration Range Units	Selected from mmH <sub>2</sub> O, mmAq, mmWG, mmHg, Torr, Pa, hPa, kPa, MPa, mbar, bar, gf/cm <sup>2</sup> , kgf/cm <sup>2</sup> , inH <sub>2</sub> O, inHg, ftH <sub>2</sub> O, psi, or atm.(Only one unit can be specified)

T05E.EPS

\*1: Up to 16 alphanumeric characters for BRAIN and 8 characters for HART including '-' and '.' will be entered in the amplifier memory. If specified Tag includes other characters than above, it will not be entered in the amplifier memory.

#### < Related Instruments > "♦"

Power Distributor: Refer to GS 01B04T01-02E or

GS 01B04T02-02E BRAIN TERMINAL: Refer to GS 01C00A11-00E

#### < Reference >

- 1. Teflon; Trademark of E.I. DuPont de Nemours & Co.
- 2. Hastelloy; Trademark of Haynes International Inc.
- 3. HART; Trademark of the HART Communication Foundation.
- 4. FOUNDATION; Trademark of Fieldbus Foundation.
- 5. PROFIBUS; Registered trademark of Profibus Nutzerorganisation e.v., Karlsruhe, Germany.

#### **Material Cross Reference Table**

AISI 316L
AISI 316
AISI 304
AISI 1025
AISI 4137
ASTM630
ASTM CF-8M

T07E.EPS

 Other company names and product names used in this material are registered trademarks or trademarks of their respective owners.

#### < Specification Conformance >

The model EJA530A maintain a specification conformance to at least 3  $\sigma$ .

#### ■ MODEL AND SUFFIX CODES

#### Model EJA530A

Model	Su	ıffix Code	es	Description
EJA530A				Gauge pressure transmitter
Output Signal -D · · · · · · · · · · · · · · · · · ·			4 to 20 mA DC with digital communication (BRAIN protocol)	
, 9			4 to 20 mA DC with digital communication (HART protocol, refer to GS 01C22T01-00E)	
	-F · · · ·			Digital communication (FOUNDATION Fieldbus protocol, refer to GS 01C22T02-00E)
	-G · · · ·			Digital communication (PROFIBUS PA protocol, refer to GS 01C22T03-00E)
Measurement	Α · · · ·			10 to 200 kPa {0.1 to 2 kgf/cm²} {1.45 to 29 psi} {0.1 to 2 bar}
span (capsule)	В			0.1 to 2 MPa {1 to 20 kgf/cm <sup>2</sup> } {14.5 to 290 psi} {1 to 20 bar}
	C · · · ·			0.5 to 10 MPa {5 to 100 kgf/cm <sup>2</sup> } {72.5 to 1450 psi} {5 to 100 bar}
	D · · · ·		• • • • • •	5 to 50 MPa {50 to 500 kgf/cm <sup>2</sup> } {720 to 7200 psi} {50 to 500 bar}
Wetted parts				[Process Connection] [Diaphragm]
material *2	S# · ·			SUS316L *4 Hastelloy C-276 *3
	H# -			Hastelloy C-276 *3 Hastelloy C-276 *3
Process	4 ·			1/2 NPT female
connection	-			1/2 NPT male
				G 1/2 DIN 16 288 male
	9 -			M2031.5 DIN 16 288 male
	N	1		Always N
		-0 · · · ·		Always 0
Electrical connecti	on	0 · · · ·		G1/2 female, one electrical connection
	☆	2 · · · ·		1/2 NPT female, two electrical connections without blind plug
		3 · · · ·		Pg 13.5 female, two electrical connections without blind plug
		4 · · · ·		M20 female, two electrical connections without blind plug
		5		G1/2 female, two electrical connections and a blind plug
		7 · · · ·		1/2 NPT female, two electrical connections and a blind plug
		8		Pg 13.5 female, two electrical connections and a blind plug
		9		M20 female, two electrical connections and a blind plug
		Α		G1/2 female, two electrical connections and a SUS316 blind plug
		C · · · ·		1/2 NPT female, two electrical connections and a SUS316 blind plug
		D · · · ·		M20 female, two electrical connections and a SUS316 blind plug
Integral indicator				Digital indicator
		.   -		Digital indicator with the range setting switch *1
	7			(None)
Mounting bracket				SECC Carbon steel 2-inch pipe mounting
		F·		SUS316 2-inch pipe mounting
L			SUS316 2-inch pipe mounting	
		☆ N ·		(None)
High accuracy		☆ /۱	HAC · · ·	Always /HAC
Optional codes				/□ Optional specification
				TABLEDO

T02E.EPS

The ' $\Rightarrow$ ' marks indicate the most typical selection for each specification. Example: EJA530A-DAS4N-02NN/HAC/ $\Box$ The "#marks indicate the construction materials conform to NACE material recommendations per MR01-75. For the use of SUS316 material, there may be certain limitations for pressure and temperature. Please refer to NACE standards for details.

- Not applicable for Output signal code  ${\sf F}$  and  ${\sf G}$ .
- Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The \*2: use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids. Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high-temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed
- information of the wetted parts material. \*3: Hastelloy C-276 or ASTM N10276.
- SUS316L or ASTM grade 316L.

# ■ OPTIONAL SPECIFICATIONS (For Explosion Protected types "♦")

For FOUNDATION Fieldbus explosion protected type, see GS 01C22T02-00E. For PROFIBUS PA explosion protected type, see GS 01C22T03-00E.

Item	Description	
	FM Explosionproof Approval *1 *3 *4 Applicable standard: FM3600, FM3615, FM3810, ANSI/NEMA250 Explosionproof for Class I, Division 1, Groups B, C and D Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G Hazardous (classified) locations, indoors and outdoors (NEMA 4X) Temperature class: T6 Amb. Temp.: -40 to 60°C (-40 to 140°F)	FF1
Factory Mutual (FM)	FM Intrinsically safe Approval *1 *3 *4 Applicable standard: FM3600, FM3610, FM3611, FM3810, ANSI/NEMA250 Intrinsically Safe for Class I, Division 1, Groups A, B, C & D, Class II, Division 1, Groups E, F & G and Class III, Division 1 Hazardous Locations. Nonincendive for Class I, Division 2, Groups A, B, C & D, Class II, Division. 2, Groups E, F & G, and Class III, Division 1 Hazardous Locations. Enclosure: "NEMA 4X", Temp. Class: T4, Amb. Temp.: –40 to 60°C (–40 to 140°F) Intrinsically Safe Apparatus Parameters [Groups A, B, C, D, E, F and G] Vmax=30 V, Imax=165 mA, Pmax=0.9 W, Ci=22.5 nF, Li=730 μH [Groups C, D, E, F and G] Vmax=30 V, Imax=225 mA, Pmax=0.9 W, Ci=22.5 nF, Li=730 μH	FS1
	Combined FF1 and FS1 *1 *3 *4	FU1
ATEX	ATEX Flameproof Approval *2 *4 Applicable standard: EN 60079-0, EN 60079-1 Certificate: KEMA 02ATEX2148 II 2G Ex d IIC T4, T5, T6 Amb. Temp.: T5; -40 to 80°C ( -40 to 176°F), T4 and T6; -40 to 75°C ( -40 to 167°F) Max. process Temp.: T4; 120°C (248°F), T5; 100°C (212°F), T6; 85°C (185°F)	KF21
	ATEX Intrinsically safe Approval *2 *3 *4 Applicable standard: EN50014, EN50020, EN50284 Certificate: KEMA 02ATEX1030X II 1G EEx ia IIC T4, Amb. Temp.: –40 to 60°C (–40 to 140°F) Ui=30 V, Ii=165 mA, Pi=0.9 W, Ci=22.5 nF, Li=730 μH	KS2

T03-1E.EPS

- Applicable for Electrical connection code 2, 7 and C (1/2 NPT female).
- Applicable for Electrical connection code 2, 4, 7, 9, C and D (1/2 NPT and M20 female).
- \*2: \*3: Applicable for Output signal code D and E.
  - For intrinsically safe approval, use the safety barrier certified by the testing laboratories (BARD-400 is not applicable). Lower limit of ambient temperature is -15°C (5°F) when /HE is specified.

Item	Description	Code
Canadian Standards	CSA Explosionproof Approval *1 *3 *4 Applicable standard: C22.2 No. 0, No. 0.4, No. 25, No. 30, No. 94, No. 142 Certificate: 1089598 Explosionproof for Class I, Division 1, Groups B, C and D Dustignitionproof for Class II/III, Division 1, Groups E, F and G Division2 'SEALS NOT REQUIRED', Temp. Class: T4, T5, T6 Encl Type 4x Max. Process Temp.: T4; 120°C (248°F), T5; 100°C (212°F), T6; 85°C (185°F) Amb. Temp.: –40 to 80°C (–40 to 176°F) Process Sealing Certification Dual Seal Certified by CSA to the requirement of ANSI/ISA 12.27.01 No additional sealing required. Primary seal failure annunciation: at the zero adjustment screw	CF1
Association (CSA)	CSA Intrinsically safe Approval *1 *3 *4 Applicable standard: C22.2 No. 0, No. 0.4, No. 25, No. 30, No. 94, No. 142, No. 157, No. 213 Certificate: 1053843 Class I, Groups A, B, C and D Class II and III, Groups E, F and G Encl Type 4x, Temp. Class: T4, Amb. Temp.: -40 to 60°C (-40 to 140°F) Vmax=30 V, Imax=165 mA, Pmax=0.9 W, Ci=22.5 nF, Li=730 µH Process Sealing Certification Dual Seal Certified by CSA to the requirement of ANSI/ISA 12.27.01 No additional sealing required. Primary seal failure annunciation: at the zero adjustment screw	CS1
	Combined CF1 and CS1 *1 *3 *4	CU1
IECEx Scheme	IECEx Intrinsically safe, type n and Flameproof Approval *3 *4 *5 Intrinsically safe and type n  Applicable Standard: IEC 60079-0:2004, IEC 60079-11:1999, IEC 60079-15:2005, IEC 60079-26:2005  Certificate: IECEx KEM 06.0007X  Ex ia IIC T4, Ex nL IIC T4 Enclosure: IP67  Amb. Temp.: -40 to 60°C (-40 to 140°F), Max. Process Temp.: 120°C (248°F) Electrical Parameters: [Ex ia] Ui=30 V, Ii=165 mA, Pi=0.9 W, Ci=22.5 nF, Li=730 μH  [Ex nL] Ui=30 V, Ci=22.5 nF, Li=730 μH  Flameproof  Applicable Standard: IEC 60079-0:2004, IEC60079-1:2003  Certificate: IECEx KEM 06.0005  Ex d IIC T6T4 Enclosure: IP67  Max.Process Temp.: T4;120°C (248°F), T5;100°C (212°F), T6; 85°C (185°F)  Amb.Temp.: -40 to 75°C (-40 to 167°F) for T4, -40 to 80°C (-40 to 176°F) for T5, -40 to 75°C (-40 to 167°F) for T6	

T03-2E.EPS

- \*1: \*2: \*3:
- Applicable for Electrical connection code 2, 7 and C (1/2 NPT female). Applicable for Electrical connection code 2, 4, 7, 9, C and D (1/2 NPT and M20 female).
- Applicable for Output signal code D and E.
- For intrinsically safe approval, use the safety barrier certified by the testing laboratories (BARD-400 is not applicable). Lower limit of ambient temperature is –15°C (5°F) when /HE is specified.

  Applicable for Electrical connection code 2, 4, 7, C and D (1/2 NPT and M20 female).
- \*4: \*5:

#### **■ OPTIONAL SPECIFICATIONS**

	Item		Description		Code
Painting *11 Color change		Amplifier cover only			P□
		Amplifier cover and terr	minal cover, Munsell 7.5 R4/14		PR
	Coating change	Epoxy resin-baked coat	ting *14		X1
316 SST ex	terior parts		Exterior parts on the amplifier housing (name plates, tag plate, zero-adjustment screw, stopper screw) will become 316 SST *16		нс
Fluoro-rubbe	er O-ring	All O-rings of amplifier h	nousing. Lower limit of ambient te	mperature: -15°C (5°F)	HE
Lightning pro	otector	Transmitter power supply voltage: 10.5 to 32 V DC (10.5 to 30 V DC for intrinsically safe type, 9 to 32 V DC for Fieldbus communication type.) Allowable current: Max. 6000 A (1×40 ms), Repeating 1000 A (1×40 ms) 100 times		A	
		Degrease cleansing trea	atment		K1
Oil-prohibite	ed use	Degrease cleansing treating temperature	atment with fluorinated oil filled ca -20 to 80°C	apsule.	K2
		P calibration (psi unit)			D1
Calibration (	units *1	bar calibration (bar unit)		(See Table for Span and Range Limits.)	D3
		M calibration (kgf/cm² unit )		D4	
Fast response *9		Update time: 0.125 sec Amplifier damping time constant: 0.1 to 64 sec in 9 increments Response time (with min. damping time constant): max. 0.3 sec		F1	
Failure alarn	n down-scale *2	Output status at CPU failure and hardware error is -5%, 3.2 mA or less.		C1	
NAMI IR NEA	13 compliant *2 *10	Output signal limits:	Failure alarm down-scale: outpotent hardware error is -5%, 3.2 mA		C2
NAMON NE	to compliant - 10	3.8 mA to 20.5 mA	Failure alarm up-scale: output status at CPU failure and hardware error is 110%, 21.6 mA or more.		СЗ
Data configur	ration at factory *15	Description into "Descriptor" parameter of HART protocol		CA	
Stainless ste housing *3	ainless steel amplifier Amplifier housing material; SCS14A stainless steel (equivalent to SUS316 cast stainless steel or ASTM CF-8M)		valent to SUS316 cast	E1	
Wired tag plate		Stainless steel tag plate wired onto transmitter			N4
	European Pressure Equipment Directive *13  PED 97/23/EC Category: III, Module: H, Type of Equipment: Pressure Accessory-Vessel, Type of Fluid: Liquid and Gas, Group of Fluid: 1 and 2		ccessory-Vessel,	PE3	
Mill Certifica	ate	Process connector		M15	
Pressure test/Leak test		Test Pressure: 200 kPa (2 kgf/cm²) *4		T05	
		Test Pressure: 2 MPa (20 kgf/cm²) *5 Nitrogen (N₂) Gas or Water *6		T06	
Certificate *	12	Test Pressure: 10 MPa (100 kgf/cm²) *6 Retention time: 10 minutes		Retention time: 10 minutes	T07
		Test Pressure: 50 MPa (500 kgf/cm²) *7		T08	

T04E.EPS

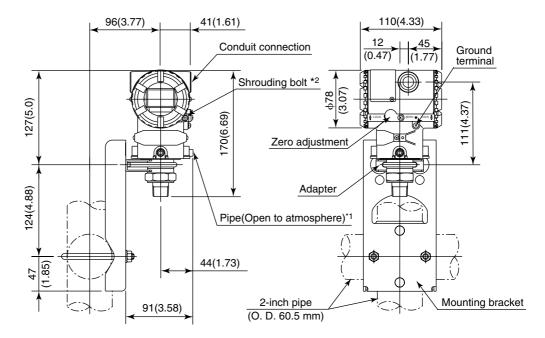
- \*1: The unit of MWP (Max. working pressure) on the name plate of a housing is the same unit as specified by Option code D1, D3 and D4.
- \*2: Applicable for Output signal code D and E. The hardware error indicates faulty amplifier or capsule. When combining with Option code F1, output status for down-scale is -2.5%, 3.6 mA DC or less.
- \*3: Applicable for Electrical connection code 2, 3, 4, A, C and D. Not applicable for Option code P□ and X1.
- \*4: Applicable for Capsule code A.
- \*5: Applicable for Capsule code B.
- \*6: Applicable for Capsule code C.
  \*7: Applicable for Capsule code D.
- \*7: Applicable for Capsule code D. Write protection switch is attached for Output code E.
- \*8: Pure nitrogen gas or pure water is used for oil-prohibited use (Option code K1 and K2)
- \*9: Applicable for Output signal code D and E. Write protection switch is attached for Output code E.
- \*10: Not applicable for Option code C1.
- \*11: Standard polyurethan painting can be used in acid atmosphere, whereas the epoxy resin-baked coating (Option code X1) can be used in alkaline atmosphere. Anti-corrosion coating, the combination of polyurethan and epoxy resin-baked coating, is available by special order as sea water, alkaline, and acid resistant.
- \*12: The unit on the certificate is always kPa or MPa regardless of selection of option code D1, D3, or D4.
- \*13: If compliance with category III is needed, specify this option code.
- \*14: Not applicable for color change option.
- \*15: Applicable for Output signal code E.
- \*16: 316 or 316L SST. The specification is included in option code /E1.

#### DIMENSIONS

#### Model EJA530A

◆ With Process Connection code 7

Unit: mm(Approx. inch)

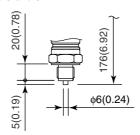


- \*1: Applied to Model EJA530A with Measurement span code A, B, and C. \*2: Applicable only for ATEX and IECEx Flameproof type.



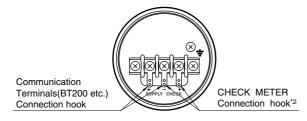


◆ For Process Connection code 8 and 9



F02E.EPS

#### Terminal Configuration



#### Terminal Wiring

SUPPLY +	Power supply and output terminal	
CHECK +	External indicator(ammeter) terminal*2	
÷	Ground terminal	

\*2: When using an external indicator or a check meter, the internal resistance must be 10  $\Omega$  or less. Not available for Fieldbus communication (Output signal code F and G).

F03E.EPS

#### **■ SELECTION GUIDE**

Application	Туре	Model	Capsule	Measurement Span		Maximum Working Pressure	
				kPa	inH <sub>2</sub> O	MPa	psi
Differential Pressure	Traditional-Mounting*1	EJA110A	L M H V	0.5 to 10 1 to 100 5 to 500 0.14 to 14MPa	2 to 40 4 to 400 20 to 2000 20 to 2000 psi	16 <sup>*4</sup> 16 16 16	2250*4 2250 2250 2250 2250
Flow	Integral Orifice	EJA115	L M H	1 to 10 2 to 100 20 to 210	4 to 40 8 to 400 80 to 830	3.5 14 14	500 2000 2000
Differential Pressure & Liquid Level with Remote Seals	Extended Flush Combination	EJA118N EJA118W EJA118Y	M H	2.5 to 100 25 to 500	10 to 400 100 to 2000	Based on Flange Rating	
Draft Range	Traditional-Mounting*1	EJA120A	E	0.1 to 1	0.4 to 4	50 kPa	7.25
Differential Pressure & Liquid Level	Traditional-Mounting*1	EJA130A	M H	1 to 100 5 to 500	4 to 400 20 to 2000	32 32	4500 4500
Liquid Level, Closed or Open Tank	Flush Extended	EJA210A EJA220A	M H	1 to 100 5 to 500	4 to 400 20 to 2000	Based on Flange Rating	
Absolute (vacuum) Pressure	Traditional-Mounting*1	EJA310A	L M A	0.67 to 10*2 1.3 to 130*2 0.03 to 3 MPa*2	2.67 to 40*2 0.38 to 38 inHg*2 4.3 to 430 psi*2	10 kPa <sup>*2</sup> 130 kPa <sup>*2</sup> 3000 kPa <sup>*2</sup>	40 in H <sub>2</sub> O*2 18.65*2 430*2
Gauge Pressure	Traditional-Mounting*1	EJA430A	A B	0.03 to 3 MPa 0.14 to 14 MPa	4.3 to 430 psi 20 to 2000 psi	3 14	430 2000
Gauge Pressure with Remote Seal	Extended	EJA438N	A B	0.06 to 3 MPa 0.46 to 7 MPa	8.6 to 430 psi 66 to 1000 psi	Based on Flange Rating	
Gauge Pressure with Remote Seal	Flush	EJA438W	A B	0.06 to 3 MPa 0.46 to 14 MPa	8.6 to 430 psi 66 to 2000 psi	Based on Flange Rating	
High Gauge	Traditional-Mounting*1	EJA440A	C D	5 to 32 MPa 5 to 50 MPa	720 to 4500 psi 720 to 7200 psi	32 50	4500 7200
Absolute & Gauge Pressure*3	Direct-Mounting	EJA510A EJA530A	A B C D	10 to 200 0.1 to 2 MPa 0.5 to 10 MPa 5 to 50 MPa	1.45 to 29 psi 14.5 to 290 psi 72.5 to 1450 psi 720 to 7200 psi	200 kPa 2 10 50	29 290 1450 7200

T06E.EPS

- \*1: Traditional-mounting is 1/4 18 NPTF process connections (1/2 14 NPTF with process adapters) on 2-1/8" centers.
- \*2: Measurement values in absolute.
- \*3: Measurement values in absolute for EJA510A.
- \*4: When combined with Wetted parts material code H, M, T, A, D, and B, the value is 3.5 MPa (500 psi).

#### < Ordering Information > "♦"

Specify the following when ordering

- 1. Model, suffix codes, and optional codes
- 2. Calibration range and units:
- Calibration range can be specified with range value specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -32000 to 32000.
   Specify only one unit from the table, 'Settings'
- when shipped.'

  3. Select linear or square root for output mode and
- display mode.
  - Note: If not specified, the instrument is shipped set for linear mode.
- 4. Select normal or reverse for operation mode Note: If not specified, the instrument is shipped in normal operation mode.
- 5. Display scale and units (for transmitters equipped with integral indicator only)
  Specify either 0 to 100 % or engineering unit scale and 'Range and Unit' for engineering units scale:
  Scale range can be specified with range limit specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -19999 to 19999.
- 6. Tag Number (if required)